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| APPLICATION NO.      | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------|-------------|----------------------|---------------------|------------------|
| 10/583,131           | 05/11/2007  | Friedel Michel       | 4033-1002           | 1249             |
| 466                  | 7590        | 02/26/2008           | EXAMINER            |                  |
| YOUNG & THOMPSON     |             |                      | NIESZ, JASON KAROL  |                  |
| 209 Madison Street   |             |                      |                     |                  |
| Suite 500            |             |                      | ART UNIT            | PAPER NUMBER     |
| ALEXANDRIA, VA 22314 |             |                      | 4147                |                  |
|                      |             |                      |                     |                  |
|                      |             |                      | MAIL DATE           | DELIVERY MODE    |
|                      |             |                      | 02/26/2008          | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/583,131             | MICHEL ET AL.       |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | JASON K. NIESZ         | 4147                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 16 June 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-12 and 15 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-12, 15 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 16 June 2002 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/16/2006</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|   | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 06/16/2006 was considered by the examiner.
3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the measurement tank must be shown or the feature canceled from the claim. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-6, 11, 12 and 15 are rejected under 35 U.S.C. 102(a) as being anticipated by Kesten et al. (De 10107895 A1).

7. Another patent in the same family as Kesten entered the US national stage as application 10/471,926 and published as US 2008/0016884 on June 6, 2007. This application will be used as a translation of Kesten. References to Kesten will refer to the US application unless otherwise stated.

8. In Re claim 1 Kesten discloses a method for filling a compressed-gas container in which a gas is introduced into a cooled compressed-gas container (Page 1, paragraph 9)

9. In Re claim 2 Kesten discloses generating pressure in the filled and closed compressed-gas tank by warming (Page 1, paragraph 9)

10. In Re claims 3 and 15 Kesten discloses the pressure tank warming up to the ambient temperature (Page 2, paragraph 27).

11. In Re claim 4 with reference to Figure 1 Kesten discloses a cooling bath (2) for use in cooling the compressed-gas tank during filling process (Page 2, paragraph 23).

12. In Re claim 5 Kesten discloses the use of liquid nitrogen at a temperature of -196 C to cool the compressed-gas tank (Page 1, paragraph 11).

13. In Re claim 6 Kesten discloses the use of liquid nitrogen at -196 C to cool the compressed-gas tank (Page 1, paragraph 11). Kesten further discloses the use of a liquid nitrogen heat exchanger to cool the fill gas to -196 C (Page 2, paragraph 27). The examiner notes that the filling would take place at a constant temperature because the fill gas and the compressed-gas tank are both cooled to the same temperature.

14. In Re claim 11 Kesten discloses the method whereby the compressed-gas tank is filled with a gas mixture by filling with a previously produced gas mixture (Page 3, claim 1).

15. In Re claim 12 Kesten discloses the use of a compressed gas source at 100 bar (Page 1, paragraph 11).

***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kesten in view of Wolff et al. (US Patent 4,715,786).

18. In Re claim 7 Kesten discloses all claimed limitations but doesn't disclose determination and monitoring of the filling quantity gravimetrically. Wolff discloses gravimetric measurement of fluid quantity (Column 13, lines 10-15). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a gravimetric measurement of fill quantity, in order to prevent overfill of the compressed-gas tank.

19. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kesten in view of Bastian (US Patent 5,900,538).

20. In Re claim 8 Kesten discloses all the limitations but doesn't disclose a manometric determination of the filling quantity. Bastian discloses manometric measurement of pressure (Column 12, line 13). Because the pressure in the compressed-gas tank is held constant during filling, a pressure measurement can be used to calculate quantity. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a manometric measurement to determine fill quantity, in order to prevent overfill of the compressed-gas tank.

21. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kesten in view of Psaros (US Patent 6,032,665).

22. In Re claim 9 Kesten discloses all the limitations but doesn't disclose the use of a measurement gas container. Psaros in reference to Figure 6 discloses the use of an intermediate tank to measure a dosing quantity (88)(Column 2, lines 1-9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Kesten method through the addition of an intermediate

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measurement tank, in order to guarantee the proper supply of fluid reaches each compressed-gas tank.

23. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kesten in view of Keneavy (US Patent 4,922,973).

24. In Re claim 10 Kesten discloses all the limitations but doesn't disclose a method for filling compressed-gas tanks characterized that the introduction of cryogenically liquefied gas into the compressed-gas container is effected by condensation of a gas in the cooled compressed gas container. Keneavy discloses a method for filling a recovery tank with refrigerant gas comprising cooling the tank to the point that the gas condenses into liquid form in said tank (abstract). Therefore, it would have been obvious to one of ordinary skill in the art to introduce liquefied gas to the compressed-gas tank through condensing said gas in the cooled compressed-gas tank, In order to adapt the Kesten system for use with a fill gas having a boiling point above that of liquid nitrogen.

### ***Double Patenting***

25. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

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be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

26. Claims 1, 2, 3, 4, 5, 6, 8, 11, 12 and 15 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5, 6, 7, 11 and 12 of copending Application No. 10/576,013. Although the conflicting claims are not identical, they are not patentably distinct from each other because for example, the claim 1 of application 10/576,013 contains all the limitations of claim 1 of the instant application and the further limitation that the fluid be a gas only and not a liquid. Therefore, the copending claim 1 anticipates claim 1 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

27. Claims 1 and 12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 3 of copending Application No. 10/471,926. Although the conflicting claims are not identical, they are not patentably distinct from each other because, for example, application 10/471,926 discloses all the limitations of the instant application and further discloses the limitation that the fill fluid be exclusively a gas. Therefore, the copending claim 1 anticipates claim 1 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bird (US Patent 5,022,442) discloses a method for filling a high pressure container comprising subsequent filling of each component of a desired gas mixture. Welz (US Patent 6,726,241 B2) discloses a high pressure vessel for use in an airbag system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. NIESZ whose telephone number is (571)270-3920. The examiner can normally be reached on mon-fri 9-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571) 272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason K Niesz

Examiner  
Art Unit 4147

/Ninh H. Nguyen/  
Primary Examiner, Art Unit 3745  
02/19/08